

FORM PTO-1390 (Modified)
(REV 10-95)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

K-1964

TRANSMITTAL LETTER TO THE UNITED STATES

DESIGNATED/ELECTED OFFICE (DO/EO/US)

CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 1.5)

09/787607

INTERNATIONAL APPLICATION NO.

PCT/JP00/05370

INTERNATIONAL FILING DATE

August 10, 2000

PRIORITY DATE CLAIMED

August 10, 1999

TITLE OF INVENTION

PROGRAM EVALUATING DEVICE, PROGRAM EVALUATION DATA TALLYING
DEVICE, PROGRAM EVALUATING METHOD, AND RECORDED MEDIUM

APPLICANT(S) FOR DO/EO/US

Masahiro Toriyama; Masayasu Ariyoshi; and Yoshinori Nomura

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ A copy of the International Search Report (PCT/ISA/210).
8. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
9. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
10. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 13 to 18 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
A **SECOND** or **SUBSEQUENT** preliminary amendment.
16. ☐ A substitute specification.
17. ☐ A change of power of attorney and/or address letter.
18. ☐ Certificate of Mailing by Express Mail
19. ☐ Other items or information:

U.S. APPLICATION NO. (IF KNOWN) 37 CFR 1.5)

INTERNATIONAL APPLICATION NO.

ATTORNEY'S DOCKET NUMBER

09/787607

PCT/JP00/05370

K-1964

20. The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :

- ☒ Search Report has been prepared by the EPO or JPO **\$860.00**
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) **\$690.00**
- ☐ No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) **\$710.00**
- ☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO **\$1,000.00**
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) **\$100.00**

ENTER APPROPRIATE BASIC FEE AMOUNT =**CALCULATIONS PTO USE ONLY****\$860.00**

Surcharge of **\$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	25 - 20 =	0 5	x \$18.00	\$90.00
Independent claims	09 - 3 =	0 6	x \$80.00	\$480.00

Multiple Dependent Claims (check if applicable). ☐**TOTAL OF ABOVE CALCULATIONS = \$1,430.00**

Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable). ☐

SUBTOTAL = \$1,430.00

Processing fee of **\$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).

TOTAL NATIONAL FEE = \$1430.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). ☒

\$40.00**TOTAL FEES ENCLOSED = \$1,470.00**

Amount to be:
refunded \$
charged \$

☒ A check in the amount of **\$1,470.00** to cover the above fees is enclosed.

☐ Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **11-0219** A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Manabu Kanesaka
KANESAKA & TAKEUCHI
1423 POWHATAN STREET
ALEXANDRIA, VA 22314
(703)519-9785

SIGNATURE

Manabu Kanesaka

NAME

31,467

REGISTRATION NUMBER

DATE

3/20/01

09/787607

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

K-1964

Applicant : Masahiro Toriyama et al
Title : PROGRAM EVALUATING DEVICE, PROGRAM EVALUATION DATA
TALLYING DEVICE, PROGRAM EVALUATING METHOD, AND
RECORDED MEDIUM
Serial No. : (PCT/JP00/05370)
Filed : March 20, 2001 (PCT filed on August 10, 2000)
Group Art Unit :

Hon. Commissioner of Patents and Trademarks
Washington, D. C. 20231

March 20, 2001

PRELIMINARY AMENDMENT

Sir:

Preliminary to examination, please amend the application as follows:

IN THE CLAIMS

Please cancel claims 1 to 21.

Please add new claims 22 to 46 as attached herewith.

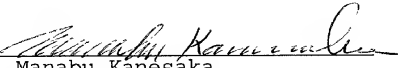
REMARKS

The preliminary amendment has been filed to cancel claims 1 to 21 and to add new claims 22 to 46.

Respectfully submitted,

KANESAKA AND TAKEUCHI

by


Manabu Kanésaka

Reg. No. 31,467

Agent for Applicants

1423 Powhatan Street
Alexandria, Virginia 22314
(703) 519-9785

209282/60

JC10 Rec'd PCT/PTO 20 MAR 2001

Claims

22. A program evaluating device comprising:
evaluation-data-input means with which a viewer
inputs evaluation data on broadcast program contents;
property-input means which inputs the viewer's
property data; and
transmitting means which transmits the inputted
evaluation data and property data to a database center.

23. The program evaluating device as claimed in claim 22,
which also comprises output-detecting means which detects that
the output of the broadcast program contents and, when
detecting, allows the evaluation-data-input means to be
inputted.

24. The program evaluating device as claimed
in claim 22, which also comprises:
request-transmitting means which transmits a request
for reference to other viewers' evaluation data to the database
center; and

data-receiving means which receives the other viewers'
evaluation data when the database center, on receiving the
request from the request-transmitting means, has transmitted
the evaluation data;

wherein:

the request-transmitting means comprises selection-

factor-input means which inputs a selection factor of the evaluation data requested for the viewer's reference; and

the data-receiving means is formed to be able to receive the evaluation data processed at the database center by each property data.

25. The program evaluating device as claimed in claim 23, which also comprises:

request-transmitting means which transmits a request for reference to other viewers' evaluation data to the database center; and

data-receiving means which receives the other viewers' evaluation data when the database center, on receiving the request from the request-transmitting means, has transmitted the evaluation data;

wherein:

the request-transmitting means comprises selection-factor-input means which inputs a selection factor of the evaluation data requested for the viewer's reference; and

the data-receiving means is formed to be able to receive the evaluation data processed at the database center by each property data.

26. The program evaluating device as claimed in claim 25, in which the data-receiving means is formed to be able receive the evaluation data processed at the

database center by each similar viewer who tends to make similar evaluation.

27. The program evaluating device as claimed in claim 22, which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

28. The program evaluating device as claimed in claim 23, which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

29. The program evaluating device as claimed in claim 24, which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

30. The program evaluating device as claimed in claim 25, which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

31. The program evaluating device as claimed in claim 26, which comprises content-receiving means which receives the broadcast program contents, and content-

output means which outputs the program contents.

32. A program evaluation data tallying device comprising:

evaluation-data-receiving means which receives evaluation data that a viewer made to broadcast program contents;

a program-evaluation database which accumulates to total the received evaluation data;

property-data-receiving means which receives property data transmitted by the viewer;

a viewer-property database which accumulates to total the received property data;

operating means which totals the evaluation data by each property data; and

transmitting means which can transmit the evaluation data totaled by the operating means to the viewer.

33. The program evaluation data tallying device as claimed in claim 32, which also comprises an individual-evaluation database which accumulates the evaluation data, which an individual viewer transmits, by each viewer and similar-viewer-selecting means which selects a plurality of other viewers, wherein the transmitting means is formed to be able to transmit the evaluation data totaled by the similar-viewer-selecting

means.

34. The program evaluation data tallying device as claimed in claim 32, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the property data from the viewer.

35. The program evaluation data tallying device as claimed in claim 33, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the property data from the viewer.

36. The program evaluation data tallying device as claimed in claim 32, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

37. The program evaluation data tallying device as claimed in claim 33, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

38. The program evaluation data tallying device as claimed in claim 34, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

39. The program evaluation data tallying device as claimed in claim 35, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

40. A program evaluating method comprising:

a content-receiving step in which program contents broadcast with a radio wave is received;

a content-storing step in which the received program contents is stored,

a content-output step in which the program contents is outputted;

an evaluation-inputting step in which evaluation data of the program contents is inputted; and

a transmitting step in which the evaluation data is transmitted to a database center.

41. A program evaluating method comprising:

an evaluation-data-input-urging step in which a

viewer is urged to input evaluation data on broadcast program contents;

a transmitting step in which the evaluation data is transmitted to a database center;

a data-receiving step in which other viewers' evaluation data accumulated at the database center is received;

an evaluation-data-processing step in which the evaluation data processed by each property data at the database center; and

a data-output step in which the evaluation data processed by each property data is outputted.

42. A program evaluating method comprising:

an evaluation-data-input-urging step in which a viewer is urged to input evaluation data on broadcast program contents;

a transmitting step in which the evaluation data is transmitted to a database center;

a data-receiving step in which other viewers' evaluation data accumulated at the database center is received;

an evaluation-data-processing step in which the evaluation data processed by each similar viewer at the database center; and

a data-output step in which the evaluation data

processed by each similar viewer is outputted.

43. A program evaluation data tallying method comprising:

a property-data-receiving step in which property data transmitted by the viewer is received;

a viewer-property-data-totaling step in which the received property data is accumulated to be totaled;

an evaluation-data-receiving step in which evaluation data which a viewer makes for a broadcast program is received;

a program-evaluation-data-totaling step in which the received evaluation data is accumulated to be totaled; and

a transmitting step in which the evaluation data totaled by each property data is transmitted to the viewer.

44. A computer readable recorded medium which is recorded with a program for executing:

an output-detecting step in which an output of broadcast program contents is detected;

an evaluation-data-input-urging step in which a viewer is urged to input evaluation data of the contents; and

a transmitting step in which the inputted evaluation data is transmitted to a database center.

45. A computer readable recorded medium
which is recorded with a program for executing:

an output-detecting step in which an output of
broadcast program contents is detected;

a property-input-urging step in which a viewer is
urged to input the viewer's property data;

an evaluation-data-input-urging step in which the
viewer is urged to input evaluation data of the contents;
and

a transmitting step in which the inputted property
data and evaluation data is transmitted to the database
center.

46. A computer readable recorded medium
which is recorded with a program for executing:

an output-detecting step in which an output of
broadcast program contents is detected;

a property-input-urging step in which a viewer is
urged to input the viewer's property data;

an evaluation-data-input-urging step in which the
viewer is urged to input evaluation data of the contents;

a transmitting step in which the inputted property
data and evaluation data is transmitted to the database
center;

a request-transmitting step in which a request for
reference to other viewers' evaluation data is transmitted

to the database center; and

a data-receiving step in which the other viewers' evaluation data is received when the database center, on receiving the request by the request-transmitting means, has transmitted the evaluation data.

09/787607

K-1964

6/PRTS

JC10 Rec'd PCT/PTO 2 0 MAR 2001

Specification

PROGRAM EVALUATING DEVICE,
PROGRAM EVALUATION DATA TALLYING DEVICE,
PROGRAM EVALUATING METHOD, AND RECORDED MEDIUM

Technical Field

The present invention relates to a technology for making use of viewers' evaluation data on broadcast program contents, and to a broadcast receiving apparatus, a broadcast transmitting apparatus, broadcast program producing, and so on.

Background of the Invention

• • • Prior Art • • •

(Evaluation of Products by Consumers)

Consumers' evaluation to hardware goods is usually fed back to the manufacturer and becomes a driving force to provide better goods. For example, goods sales data (so-called POS data) made by goods store represents the consumers' evaluation. Moreover, evaluation made by periodical magazines such as "Kurashi no Techo (A Memorandum for Life)", "Tokusengai (Shopping Street for Special Selections)", and "Tashikana Me (Reliable Eyes)" published by Kokumin Seikatsu Center (Japan Consumer Information Center) are also helpful in preventing

consumers, who intend to purchase some kind of goods, from purchasing poor quality goods, and provide the manufacturers opportunities to improve and upgrade their goods, thus resulting in bringing out the consumers' satisfaction.

(Evaluation of Broadcast Program)

Meanwhile, broadcast program contents are provided to viewers by program producers through broadcasting stations. Provided that the program producers are manufacturers of goods called contents, viewers are consumers of the goods. Thus, evaluation of the contents as goods called broadcast programs is provided by the only index called an "audience rating."

By the way, as to "movies" as similar goods to broadcast program contents, there are post-evaluation called box-office profits, and evaluation by movie commenters or mass media such as magazines, both of which are considerably objective evaluation indices. As to broadcast program contents, however, there is no evaluation system by commentators or the like.

The viewers can sometimes refer to some articles in TV program guidebooks or the like as reviews before watching. Such reviews, however, are not so helpful because the broadcast programs are real-time media that cannot be criticized. Moreover, too many broadcast programs are, unlike movies, provided to be carefully criticized. Furthermore, progressive increase of broadcasting channels for the future

will make it less expectable to be criticized more carefully than ever. In addition, since broadcast programs are sponsored except for those by NHK (Nippon Hoso Kyokai, Japan Broadcasting Corporation), there is a problem that it is difficult for the programs to be evaluated negatively or critically. Furthermore, no concept of "sales" or "box-office profits" exists except for some of pay-per-view broadcasting.

(Appearance of a Hard Disc Recorder)

By the way, since video-recording apparatus have been developed recently, broadcast programs are not always watched on time. Particularly, since hard discs have had larger capacities and have been more inexpensive rapidly by the development of the related technology in recent years, a "hard disc recorder (HDDR)" has been practical. The hard disc recorder is a television which can record broadcast programs on a hard disc instead of a video tape and is also known as a "personal video recorder (PVR)." If the hard disc recorders become more popular, the proportion of the audience who watch recorded programs later instead of watching them on time will certainly increase from now on.

(Range of Search for Prior Related Art)

Retrieval of documents was carried out in a database provided by Derwent Information with an abstract key word of (TV+television)*(HDD+(hard*disc)+(random*access))*internet, and 9 documents were extracted as a result. None of these

documents, however, were found to be closely related to the present invention.

In addition, retrieval of documents was also carried out with a key word of internet*(TV+television)*(evaluation+rating), and 6 documents were extracted as a result. None of these documents, however, were found to be closely related to the present invention.

Moreover, conceptual retrieval was also carried out in the patent database provided by Nomura Research Institute, Ltd. with a concept that "a television program recorded and stored in a hard disc can be watched with mutual reference to a view report or program evaluation with the use of Internet." However, no documents which were closely related to the present invention were found.

Furthermore, full text retrieval was carried out with a keyword of (PVR+hard*disc)*(EPG+electronic*program*guide)*internet*evaluation. However, no documents which were closely related to the present invention were found.

Disclosure of the Invention

• • • Object • • •

It is an object of the present invention to provide a

technology for efficiently collecting data for a useful and objective program evaluation, and for effectively making use of the collected data.

• • • Constitution • • •

(Claim 1)

The invention as claimed in claim 1 is related to a program evaluating device comprising evaluation-data-input means with which a viewer inputs evaluation data on broadcast program contents, and transmitting means which transmits the inputted evaluation data to a database center.

The "broadcast program contents" mean the programs broadcast by a radio wave, which include radio programs in addition to television programs. The "viewer" means a "listener" when the "broadcast program contents" are radio programs.

The "evaluation-data-input means" may be a touch panel sensor built in a picture output device which outputs the contents as well as an input device such as a keyboard or a mouse. It may be an exclusive device by which the viewer can input the evaluation either with simple push-buttons illustrated some marks such as "O" and "X" or with document input by text data.

Furthermore, as well as positive input of the evaluation data as described above, means for negative input of the

evaluation data is also included in the "evaluation-data-input means." The means for negative input of the evaluation data is the means by which, for example, the fact that a viewer watched a broadcast program from the beginning to the end is inputted as evaluation data that the program was worth watching from the beginning to the end. Moreover, the fact that the program was switched to another one is inputted as evaluation data that the program was not worth watching to the end. These evaluation data can also be used as data for calculating out a so-called "audience rating."

The "database center" means the facilities which can store and arrange the transmitted evaluation data and fetched if necessary.

The "transmitting means" is the means which transmits the evaluation data to the database center though a line such as a telephone line or an exclusive line. For example, there is a communication system which is ensured to be interactive by using an Internet protocol. Further, there are some means such as the means which transmits automatically every given specified period and the means which transmits by receiving a transmission order in case of being always connected to the communication line.

The "evaluation data" transmitted by the "transmitting means" includes the data (program-identification data) which identifies program contents such as the broadcast date and time,

the station name and the program name. The program-identification data is obtained by reading a digital watermarking or the like assembled in the data of the program contents.

(Claim 2)

The invention as claimed in claim 2 is also related to the program evaluating device which also comprises output-detecting means which detects that the output of the broadcast program contents and, when detecting, allows the evaluation-data-input means to be inputted.

Here, the "output-detecting means" is a device which is electrically connected to, for example, the output means of broadcast program contents and detects the output of the broadcast program contents when the contents are outputted. When the broadcast program contents are outputted, it can be assumed that there exists an viewer of the program.

When a program ID which specifies the program is included in the data of the broadcast program contents, the program is specified by the program ID. When the viewer is watching the program on time, the program can also be specified by the channel data and the time data.

(Claim 3)

The invention as claimed in claim 3 is also related to the program evaluating device which also comprises property-input means which inputs the viewer's property data,

wherein the transmitting means is formed to be able to transmit the inputted property data to the database center.

The "property data" means the data about the viewer's sex, age, profession or the like. For example, the property data is inputted by selection from menu buttons prepared beforehand. When broadcast program contents with inputted evaluation data and the evaluation data itself are made to a database, preference data analyzed by using the database is included in the property data.

The "property-input means" may be a touch panel sensor built in a picture output device which outputs the contents as well as an input device such as a keyboard or a mouse. It may be an exclusive device by which the viewer can input the evaluation with simple push-buttons illustrated some marks such as "O" and "X." Moreover, the means either may have the function of the "evaluation-data-input means" described in the section explaining the terms in claim 1 or may be provided separately from the "evaluation-data-input means."

(Claim 4)

The invention as claimed in claim 4 is also related to the program evaluating device which also comprises request-transmitting means which transmits a request for reference to other viewers' evaluation data to the database center, and data-receiving means which receives the other viewers' evaluation data when the database center, on receiving

the request from the request-transmitting means, has transmitted the evaluation data.

(Claim 5)

The invention as claimed in claim 5 is the one to which the program evaluating device as claimed in claim 4 is limited, and is related to the program evaluating device in which the request-transmitting means comprises selection-factor-input means which inputs a selection factor of the evaluation data requested for the viewer's reference.

The "selection factor" in the "selection-factor-input means" is, for example, a factor to select ten viewers whose property data are the same as or similar to the viewer's, or a factor to select five viewers whose preferences are the same as or similar to the viewer's.

(Claim 6)

The invention as claimed in claim 6 is the one to which the invention as claimed in claim 4 is limited, and is related to the program evaluating device in which the data-receiving means is formed to be able to receive the evaluation data processed at the database center by each property data.

(Claim 7)

The invention as claimed in claim 7 is the one to which the invention as claimed in claim 4 is limited, and is related to the program evaluating device in which the data-receiving means is formed to be able receive the evaluation data processed

at the database center by each similar viewer who tends to make similar evaluation.

(Claim 8)

The invention as claimed in claim 8 is the one to which the program evaluating device as claimed in claim 1, claim 2, claim 3, claim 4, claim 5, claim 6 or claim 7 is limited, and is related to the program evaluating device which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

The program evaluating device as claimed in this claim is a system which can receive and output the program contents, and further evaluate about the contents.

The "content-receiving means" is a device that can receive the broadcast program contents. As to television broadcasting, the device is a so-called television receiver, a personal computer with an additional function of television, or the like; as to radio broadcasting, the device is a radio receiver.

The "content-output means" is a device that reproduces the contents and comprises a picture reproducing device and a voice reproducing device. With respect to the picture reproducing device, there are a CRT unit, a liquid crystal display, and a plasma display. With respect to the voice reproducing unit, there are a speaker and the like.

Further, it is desirable for the program evaluating device to have content-storing means. Here, the "content-storing means" is a storage device that electronically stores the received program contents, and a device which can random-access and has a large storage capacity is preferable for the "content-storing means." For program contents accompanied with pictures, a device such as a hard disc or a DVD-RAM is preferable. Besides the above, the device such as an MO (magneto-optical disc), a ZIP unit or a CD-RW is possible.

(Claim 9)

The invention as claimed in claim 9 is related to a program evaluation data tallying device comprising evaluation-data-receiving means which receives evaluation data that a viewer made to broadcast program contents, a program-evaluation database which accumulates to total the received evaluation data, and transmitting means which can transmit the evaluation data to the viewer.

(Claim 10)

The invention as claimed in claim 10 is the one to which the program evaluation data tallying device as claimed in claim 9 is limited, and is related to the program evaluation data tallying device which also comprises property-data-receiving means which receives property data transmitted by the viewer, a viewer-property database which accumulates to total the received property data, and operating means which totals the

evaluation data by each property data, wherein the transmitting means is formed to be able to transmit the evaluation data totaled by the operating means.

(Claim 11)

The invention as claimed in claim 11 is the one to which the program evaluation data tallying device as claimed in claim 9 or claim 10 is limited, and is related to the program evaluation data tallying device which also comprises an individual-evaluation database which accumulates the evaluation data, which an individual viewer transmits, by each viewer and similar-viewer-selecting means which selects a plurality of other viewers, wherein the transmitting means is formed to be able to transmit the evaluation data totaled by the similar-viewer-selecting means.

(Claim 12)

The invention as claimed in claim 12 is the one to which the program evaluation data tallying device as claimed in claim 9 or claim 10 is limited, and is related to the program evaluation data tallying device wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the property data from the viewer.

The program evaluation data tallying device, to which the viewer inputs and transmits the property data as an initial registration, allows the viewer to refer to other viewers'

evaluation data under the condition that, for example, the viewer has inputted and transmitted at least one evaluation data.

(claim 13)

The invention as claimed in claim 13 is related to the program evaluation data tallying device as claimed in claim 9, claim 10, or claim 11 wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

(Claim 14)

The invention as claimed in claim 14 is related to a program-evaluating method, comprising a content-receiving step in which program contents broadcast with a radio wave is received, a content-storing step in which the received program contents is stored, a content-output step in which the program contents is outputted, an evaluation-inputting step in which evaluation data of the program contents is inputted, and a transmitting step in which the evaluation data is transmitted to a database center.

(Claim 15)

The invention as claimed in claim 15 is related to a program-evaluating method, comprising an evaluation-data-input-urging step in which a viewer is urged to input evaluation data on broadcast program contents, a transmitting step in

which the evaluation data is transmitted to a database center, a data-receiving step in which other viewers' evaluation data accumulated at the database center is received, and a data-output step in which the received other viewers' evaluation data is outputted.

(Claim 16)

The invention as claimed in claim 16 is the one to which the program-evaluating method as claimed in claim 15 is limited, and is related to the program-evaluating method wherein the evaluation data processed by each property data at the database center can be received in the data-receiving step.

(Claim 17)

The invention as claimed in claim 17 is the one to which the program-evaluating method as claimed in claim 15 is limited, and is related to the program-evaluating method wherein the evaluation data processed by each similar viewer at the database center can be received in the data-receiving step.

(Claim 18)

The invention as claimed in claim 18 is related to a program-evaluation-data-totaling method, comprising a property-data-receiving step in which property data transmitted by the viewer is received, a viewer-property-data-totaling step in which the received property data is accumulated to be totaled, an evaluation-data-receiving step in which evaluation data which a viewer makes for a broadcast

program is received, a program-evaluation-data-totaling step in which the received evaluation data is accumulated to be totaled, and a transmitting step in which the evaluation data totaled by each property data is transmitted to the viewer.

(Claim 19)

The invention as claimed in claim 19 is related to a recorded medium recorded with a computer program used by a viewer. Namely, the invention is related to a computer readable recorded medium which is recorded with a program for executing an output-detecting step in which an output of broadcast program contents is detected, an evaluation-data-input-urging step in which a viewer is urged to input evaluation data of the contents, and a transmitting step in which the inputted evaluation data is transmitted to a database center.

Here, the "recorded medium" means a medium which can hold a program which itself cannot occupy an actual space, such as a floppy disc, a CD-ROM, an MO (magneto-optical disc), a PD and so on.

(Claim 20)

The invention as claimed in claim 20 has an additional function which is added to the program according to the invention as claimed in claim 19. Namely, the invention is related to a computer readable recorded medium which is recorded with a program for executing an output-detecting step

in which an output of broadcast program contents is detected, a property-input-urging step in which a viewer is urged to input the viewer's property data, an evaluation-data-input-urging step in which the viewer is urged to input evaluation data of the contents, and a transmitting step in which the inputted property data and evaluation data is transmitted to the database center.

(Claim 21)

The invention as claimed in claim 21 has an additional function of the program according to the invention as claimed in claim 19 or claim 20.

Namely, the invention is related to the computer readable recorded medium which is recorded with a program for executing an output-detecting step in which an output of broadcast program contents is detected, a property-input-urging step in which a viewer is urged to input the viewer's property data of, an evaluation-data-input-urging step in which the viewer is urged to input evaluation data of the contents, a transmitting step in which the inputted property data and evaluation data is transmitted to the database center, a request-transmitting step in which a request for reference to other viewers' evaluation data is transmitted to the database center, and a data-receiving step in which the other viewers' evaluation data is received when the database center, on receiving the request by the request-transmitting means, has

transmitted the evaluation data.

(Others)

The program recorded on the recorded medium as claimed in claim 19, claim 20 or claim 21 can be also constructed by an operator at the database center so that the viewer can download the program to the viewer's hard disc. The download is carried out by the viewer making an access to the program supplier's server by use of a public data network of a communication enterprise service and clicking a button displayed on the viewer's display. That is, it is also possible for the operator at the database center to provide a transmitting unit that can download the above-mentioned program.

• • • Functions • • •

(Function of the invention according to claim 1)

The program evaluating device exhibits following functions.

First, a viewer who watched broadcast program contents inputs evaluation data by the evaluation-data-input means. The inputted evaluation data is transmitted by the transmitting means to the database center.

Thus the viewer can make evaluation about the watched contents, and the database center can accumulate the evaluation data for the broadcast program contents.

(Function of the invention according to claim 2)

When the output-detecting means detects that the broadcast program contents are outputted, inputting to the evaluation-data-input means becomes possible. This reflectively urges the viewer to input the evaluation data helpful in efficiently collecting the evaluation data.

(Function of the invention according to claim 3)

The viewer inputs the property data by using the property-input means. Then, the transmitting means transmits the inputted property data to the database center. At the database center, the property data is to be obtained together with the program-evaluation data.

(Function of the invention according to claim 4)

The viewer first transmits a request for making reference to other viewers' evaluation data to the database center by the request-transmitting means. The database center, on receiving the request for making reference to the other viewers' evaluation data, transmits the evaluation data of viewers other than the viewer.

The transmitted evaluation data is received by the data-receiving means to be outputted by appropriate means for reference. Here, other viewers' evaluation data can be used as materials for making a decision whether the viewer watches the broadcast program contents which had been recorded and had not been watched on time. As a result, limited time can be

effectively used.

(Function of the invention according to claim 5)

When the request-transmitting means transmits the request, the selection factor of the evaluation data requested for being referred to is inputted by the selection-factor-input means. The database center, on receiving a request with the selection factor, transmits evaluation data meeting the selection factor.

Here, the viewer can obtain other viewers' evaluation data that meet the selection factor which the viewer intends to make reference to or to compare with.

(Function of the invention according to claim 6)

The database center selects evaluation data to be transmitted based on past data or property data of viewers and to transmit the selected evaluation data. This prevents the evaluation data from being transmitted irregularly or in large amounts, which requires the viewer only to refer to the selected evaluation data.

(Function of the invention according to claim 7)

The database center selects evaluation data to be transmitted by each similar viewer based on evaluation tendency data of viewers and transmits the selected evaluation data. This prevents the evaluation data from being transmitted irregularly or in large amounts, which requires the viewer only to refer to the selected evaluation data.

(Function of the invention according to claim 8)

Because of the program evaluating device comprising the content-receiving means and the content-output means, the program contents can be received and outputted before the system inputs the evaluation data and transmits the data.

(Function of the invention according to claim 9)

The evaluation-data-receiving means first receives the evaluation data for which the viewer made evaluation on the broadcast program contents. Then, the program-evaluation database accumulates to total the received evaluation data. The totaled evaluation data is transmitted to the viewer on request of the viewer or periodically by the transmitting means.

(Function of the invention according to claim 10)

First, the property-data-receiving means receives the property data transmitted by the viewer, the viewer-property database totals the received property data, and the operating means totals the data by each property data. Then, the evaluation data totaled by the operating means is transmitted to the viewer on request of the viewer or periodically by the transmitting means. Therefore, the viewer can receive the evaluation data by viewers of a similar property.

(Function of the invention according to claim 11)

The viewer transmits the evaluation data and the individual-evaluation database totals the evaluation data by

each viewer. Then, the similar-viewer-selecting means selects a plurality of other viewers, and the transmitting means transmits the evaluation data totaled by the similar-viewer-selecting means.

(Function of the invention according to claim 12)

The viewer cannot refer to evaluation data inputted and transmitted by other viewers unless the viewer transmits the viewer's property data. This increases, as a reflective effect, the viewers who input and transmit the viewers' own property data when they want to make reference to other viewers' evaluation data.

(Function of the invention according to claim 13)

The viewer cannot refer to evaluation data inputted and transmitted by other viewers unless the viewer transmits the evaluation data based on the viewer's judgement. This increases, as a reflective effect, the viewers who input and transmit evaluation data based on the viewers' own judgement when they want to make reference to other viewers' evaluation data.

(Function of the invention according to claim 19)

On the program for the recorded medium according to the present invention being installed in the computer, it is first detected in the output-detecting step that the broadcast program contents are outputted. At this time, it can be assumed that the viewer watches the contents. Next, the viewer

is urged in the evaluation-data-input-urging step to input evaluation data of the contents. According to this, the viewer inputs the evaluation data for the contents. The inputted evaluation data is transmitted to the database center in the transmitting step.

(Function of the invention according to claim 20)

The viewer is urged to input the evaluation data in the property-input-urging step. According to this, the viewer inputs the viewer's own property data. The inputted property data is, together with the evaluation data, transmitted to the database center in the transmitting step.

(Function of the invention according to claim 21)

The request for making reference to other viewers' evaluation data is transmitted to the database center in the request-transmitting step. At the database center having received the transmitted data, on receiving the request for making reference to other viewers' evaluation data, the evaluation data of viewers other than the viewer are transmitted.

The transmitted evaluation data is received by the data-receiving step, and then outputted by an appropriate means for reference.

Brief Description of the Drawings

Fig. 1 is a conceptual illustration showing the whole

of a mode for carrying out the present invention.

Fig. 2 is a conceptual illustration showing a part of the mode for carrying out the present invention.

Fig. 3 is a conceptual illustration showing a part of the mode for carrying out the present invention.

Fig. 4 is a conceptual illustration showing an image of evaluation data in the mode for carrying out the present invention.

Fig. 5 is a flow diagram showing an image of using the evaluation data in the mode for carrying out the present invention.

Fig. 6 is an external view showing an image of an evaluation data terminal unit in the mode for carrying out the present invention.

Best Mode for Carrying Out the Invention

In the following, a best mode of the program evaluation data tallying device according to the present invention will be explained with reference to Fig. 1 to Fig. 6.

(Outline)

As shown in Fig. 1, this embodiment is a system which makes it possible that the viewer who watched program contents provided by a broadcasting station, while evaluating the program and accumulating evaluation data at a database center, watches the program after making reference to the other

viewers' evaluation data. Moreover, the evaluation data can be provided to a program production company for reference for next program production.

(Relation between the Broadcasting station and the Viewers)

The broadcasting station, as shown in Fig. 1, provides the program contents to the viewers by a broadcasting facility for broadcasting the broadcast program contents.

The viewers may be roughly classified into a type of watching the contents on time (a viewer A in Fig. 1) and a type of watching the contents after the contents are once recorded (a viewer B in Fig. 1). For the viewer A, a television receiver as a broadcast receiving function and a television monitor as a content-output function are necessary. For the viewer B, a hard disc recorder for recording and storing the contents is further necessary. This may be a personal computer with an additional television function.

(Input of the evaluation data)

The viewer A, having watched program contents, inputs evaluation data about the contents and the viewer A's property data by using an evaluation data terminal unit as shown in Fig. 6.

The evaluation data terminal unit is a separate unit, with which the viewer evaluates the program, from a unit that receives and reproduces the program contents. Thus, the unit

is for the viewer to input evaluation data and to transmit the inputted data to the database center. The image of the unit is shown in Fig. 6.

For the operation of the unit are provided cursor keys, selection buttons, a cancel button, a transmission button and so on. Other keys may be provided as required. Moreover, a liquid crystal panel is provided, and instructing items to be inputted are displayed in the liquid crystal panel.

Two questions displayed in the liquid crystal panel shown in Fig. 6 are presented as a part of the viewer's property data. The property data will be described below in relation to an evaluation subject of the evaluation data. Although not shown in the figure, the evaluation data is to be inputted after the property data is inputted.

The inputted data is once stored in the RAM and transmitted through a public telephone line.

(Function of the evaluation data terminal unit)

The above-described evaluation data terminal unit is given following functions.

First, the terminal unit is given an output-detecting function for detecting an output of the program contents. Specifically, as shown in Fig. 2 and others, the terminal unit, electrically connected with a television receiver, detects that the program is outputted. This function is for having the evaluation data inputted surely when program contents are

watched, and the function is helpful for of the invention collecting the evaluation data efficiently. Some of the output-detecting functions can obtain program identification data such as the broadcast date and time, a broadcasting station name, a program name and so on. The program identification data is to be obtained by reading a digital watermarking assembled in the data of the program contents.

Next, the terminal unit is given an input urging function for the property data and evaluation data. This can be achieved by software or the like which outputs questions to the liquid crystal panel in the terminal unit. The output display may be carried out by the ROM built in the terminal unit beforehand as a chip. Alternatively, the display may be transmitted from the database center for every output, or may be rewritten periodically by the database center. When the display is transmitted for every output and rewritten periodically, a rewritable storage unite is necessary for instruction data of items to be inputted.

Next, the terminal unit is given inputting functions of the property data and evaluation data. These functions are achieved by input keys or the like on the terminal unit. The terminal unit may be formed, of course, as an input device by a liquid crystal touch panel, without using input keys as shown in Fig. 6.

Next, the terminal unit is given a transmitting function

of the data such as the property data and the evaluation data inputted by the terminal unit. The function is achieved by a modem and communication software.

Further, the evaluation data terminal unit may be provided with an automatic inputting system which works when no active input is given by the viewer. For example, when the program contents is watched to the end, "O" or "Δ" may be inputted automatically; when the program contents is not watched to the end, "Δ" or "X" may be inputted automatically.

(Evaluation data)

The evaluation data is transmitted for each evaluation of an evaluation subject (the viewer A or the viewer B). However, it is possible to transmit the data together every given period.

Fig. 4 is an example in which the transmitted data is outputted by each evaluation subject. In Fig. 4, for the convenience of illustration, each time is represented on a horizontal axis. In actual, however, evaluation data is given for each program title.

Although the viewer A is an on-time viewer as shown in Fig. 1, he evaluates a plurality of channels at the same time. This is because he changed the channel in the halfway of the program.

The evaluation is presented in three levels as shown in Fig. 4 and Fig. 5 as "O" for "Good", "Δ" for "So-so" and "X"

for "No good." The levels, however, may be divided more finely or, in reverse, may be in two levels. Furthermore, an additionally provided key board or a key board displayed on the liquid crystal may be used to input and to transmit the documented evaluation.

(Reference to other viewers' evaluation data)

An explanation will be presented about a case, as represented by the viewer B in Fig. 1, in which the program contents are recorded and a program to be watched is selected from the recorded programs with reference to other viewers' evaluation data after the evaluation data are obtained.

The viewer B, as shown in Fig. 3, has a hard disc recorder for recording program contents, and hardware and software provided at hand. The hardware and software are provided with functions that can output other viewers' evaluation data after the evaluation data are obtained. Namely, the other viewers' evaluation data are referred to after the evaluation data are obtained by request-transmitting means (reference evaluation data requesting function) which transmits a request for reference to other viewers' evaluation data to the database center, data-receiving means (reference evaluation-data-receiving function) which receives the other viewers' evaluation data when the database center, on receiving the request by the request-transmitting means, has transmitted the evaluation data, and outputting means (reference evaluation

data-output function) which outputs the received data.

The request-transmitting means is so formed that a selection factor of the evaluation data for reference can be inputted. The "selection factor" is the property data as, for example, "a male office worker in his twenties" when the viewer is a male office worker in his twenties. Furthermore, when there are too many evaluation data that satisfy the selection factor, the data can be narrowed down by applying other selection factors, or such selection as to pick up ten viewers for the present is also possible.

In addition, when no selection factor is inputted, the factor is selected automatically by the database center. For example, "other viewers whose evaluation shows high agreement rates the viewer's" as shown in Fig. 5 are ranked at the database center and transmitted because a viewer with a high agreement rate is assumed to have a similar preference to the viewer's. In addition, it is, of course, possible either to narrow down with appropriate combination of the preference and the property, or, conversely, to loose the selection.

In Fig. 5, the complete agreement is scored as "+2," "O and Δ" and "Δ and x" as "+1" and complete disagreement as "-2." These scores are totaled and ranked in the order from the largest one or from the highest agreement rate. Thus, the evaluation data of the top-ranked five viewers are transmitted to the viewer B. The transmitted data are first outputted with

the agreement rate and property arranged in ranked order. It is made possible that, on clicking any one of the five viewers, the evaluation data of the clicked viewer can be perused. The viewer A, after referring to any one or all of the five viewers, makes them as references in deciding which programs he will watch.

(Provision of a Program)

A program is necessary in order for the hard disc recorder used by the viewer to have the functions as described above. The program is a program for making a computer execute an output-detecting step in which an output of broadcast program contents is detected, an evaluation-data-input-urging step in which a viewer is urged to input evaluation data of the contents, and a transmitting step in which the inputted evaluation data is transmitted to a database center. The program further includes a property-input-urging step in which the viewer is urged to input the viewer's property data. Computer readable recording media recorded with the program are distributed to viewers without or with charge.

(Database Center)

The database center is provided with functions such as a data-receiving function for receiving the property data and evaluation data, an evaluation database and property database for accumulating the above data, data-operating functions for sorting and operating the both data, a request-receiving

function for receiving a request for making reference to other viewers' evaluation data, a reference-data-operating function for operating which evaluation data is sent back in response to the request, a reference-data-transmitting function for transmitting reference data extracted by the operation.

The present embodiment shows a program evaluation data tallying device, to which the viewer inputs and transmits the property data as an initial registration, allows the viewer to refer to other viewers' evaluation data under the condition that the viewer has inputted and transmitted at least one evaluation data. Therefore, the viewer cannot refer to evaluation data inputted and transmitted by other viewers unless the viewer transmits his or her property data and the evaluation data based on his or her judgement.

In the following, descriptions will be made about definitions of indefinite words and terms, and doubts thereof. However, incompleteness of the descriptions does not narrow the scope of the present invention.

(About "one program")

Usually, "one program" is a program with a program title determined by a broadcasting station, which is counted as one.

In the case of commercial broadcasting, one program is defined by detecting a 1/60 second's interval provided either between one commercial message and another or a commercial message and a program.

A program which seems to be one program from the program title may be, when the program lasts so long a time that it is provided by grouped sponsors, be regarded as a plurality of programs by each sponsor group. Further, it is possible to define the "one program" for the convenience of the broadcasting station or the program production company.

(About "one evaluation")

In principle, one evaluation is provided for one program. However, when a principle that a program cannot be evaluated unless the program is watched from the beginning to the end is strictly applied, there arises the problems that the principle becomes unsuitable for the actual situation and that it is difficult to collect the evaluation data. Therefore, a viewer can input evaluation data even if he or she watches the program from or to the halfway thereof.

(Evaluation Subject of the Evaluation Data)

There is a problem who inputs the evaluation data. That is, when a program outputting unit is not of personal use and a plurality of viewers watch a program by using one program outputting unit at the same time, it is a problem whose property data is to be inputted together with evaluation data.

In principle, a viewer who inputs and transmits evaluation data is to input and to transmit the evaluation data accompanied with the viewer's property. However, for the purpose of simplifying collection of evaluation data,

following clear-cut point of view may be possible.

First, there is a way of unifying property data into that of a representative viewer who inputs most of the evaluation data. Moreover, there is a way that a family is regarded as a unit of property data to be inputted. For example, such property data is possible that the family comprises a married couple in their forties and their two primary school children.

Further, there is also a way of providing family buttons on an inputting terminal unit of evaluation data. That is, the selection with the family buttons (for example, "father" or "child") is to be essential condition for the input of the evaluation data. In addition, the terminal unit for the evaluation data may be to be provided for each member of the family. Furthermore, there may be also a way in which, instead of providing actual buttons on the input terminal unit of the evaluation data, a menu is displayed on the screen by software to urge an input of selection as shown by the evaluation-data-input unit shown in Fig. 6.

(Property Data)

The property data are based on subjective data such as sex, age, married/unmarried, and profession which are inputted by the evaluation subject of the evaluation data.

In addition to the above, the property data may be made to include so-called preference (or orientation) data which determines a relative position of the viewer by continually

inputting the evaluation data. Alternatively, only the preference data may be taken as the property data.

Other Modes for Carrying Out the Invention

In the following the range of applications of the modes will be explained.

In the above-mentioned system, it is also possible to provide evaluation data to a program production company for reference for the next program production. However, at the database center, it is also possible to construct a leading-edge-viewer-extracting system as below by using evaluation data and property data.

The leading-edge-viewer-extracting system comprises, for example, counting means which counts, by each viewer, how many times the viewer's evaluation data is referred to by other viewers from the evaluation database structured with evaluation data on broadcast programs, which are inputted by viewers and which are taken as data of the broadcast programs and data of each viewer, and leading-edge-viewer-extracting means which extracts the viewers frequently counted by the counting means.

In addition, it is also possible to make up a leading-edge-user extracting system comprising leading-edge-viewer-output means which can output leading-edge viewers extracted by the leading-edge-viewer-extracting means,

and linking means by which the evaluation data of the leading-edge viewers outputted by the leading-edge-viewer-output means is linked.

According to the leading-edge-user-extracting system as above, for example, when a program production company asks for opinions of general viewers as a reference in program production, the database center can provide the data as shown in Fig. 1. In this case, the program production company can expect to effectively obtain the opinions with higher levels than those of randomly collected viewers.

Various ways of using the evaluation data combined with the property data can be possible as well as the program production company. Thus, when providing the data to others, the property data are masked or processed so that privacy data may not be drained through the provided data such as the property data.

Industrial Applicability

The present invention relates to a technology for making use of viewers' evaluation data on broadcast program contents. Therefore, it is applicable in the industrial fields such as an industry relating to hard disc televisions, a broadcast program production industry, and a program broadcasting industry, and the like.

Claims

1. A program evaluating device comprising evaluation-data-input means with which a viewer inputs evaluation data on broadcast program contents, and transmitting means which transmits the inputted evaluation data to a database center.

2. The program evaluating device as claimed in claim 1, which also comprises output-detecting means which detects that the output of the broadcast program contents and, when detecting, allows the evaluation-data-input means to be inputted.

3. The program evaluating device as claimed in claim 1 or claim 2, which also comprises property-input means which inputs the viewer's property data, wherein the transmitting means is formed to be able to transmit the inputted property data to the database center.

4. The program evaluating device as claimed in claim 1, claim 2 or claim 3, which also comprises request-transmitting means which transmits a request for reference to other viewers' evaluation data to the database center, and data-receiving means which receives the other viewers'

evaluation data when the database center, on receiving the request from the request-transmitting means, has transmitted the evaluation data.

5. The program evaluating device as claimed in claim 4, in which the request-transmitting means comprises selection-factor-input means which inputs a selection factor of the evaluation data requested for the viewer's reference.

6. The program evaluating device as claimed in claim 4, in which the data-receiving means is formed to be able to receive the evaluation data processed at the database center by each property data.

7. The program evaluating device as claimed in claim 4, in which the data-receiving means is formed to be able to receive the evaluation data processed at the database center by each similar viewer who tends to make similar evaluation.

8. The program evaluating device as claimed in claim 1, claim 2, claim 3, claim 4, claim 5, claim 6 or claim 7, which comprises content-receiving means which receives the broadcast program contents, and content-output means which outputs the program contents.

9. A program evaluation data tallying device comprising evaluation-data-receiving means which receives evaluation data that a viewer made to broadcast program contents, a program-evaluation database which accumulates to total the received evaluation data, and transmitting means which can transmit the evaluation data to the viewer.

10. The program evaluation data tallying device as claimed in claim 9, which also comprises property-data-receiving means which receives property data transmitted by the viewer, a viewer-property database which accumulates to total the received property data, and operating means which totals the evaluation data by each property data, wherein the transmitting means is formed to be able to transmit the evaluation data totaled by the operating means.

11. The program evaluation data tallying device as claimed in claim 9 or claim 10, which also comprises an individual-evaluation database which accumulates the evaluation data, which an individual viewer transmits, by each viewer and similar-viewer-selecting means which selects a plurality of other viewers, wherein the transmitting means is formed to be able to transmit the evaluation data totaled by the similar-viewer-selecting means.

12. The program evaluation data tallying device as claimed in claim 9 or claim 10, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the property data from the viewer.

13. The program evaluation data tallying device as claimed in claim 9, claim 10, or claim 11, wherein the transmitting means is formed to be able to transmit the evaluation data to the viewer under the condition that the system receives the evaluation data from the viewer.

14. A program-evaluating method, comprising a content-receiving step in which program contents broadcast with a radio wave is received, a content-storing step in which the received program contents is stored, a content-output step in which the program contents is outputted, an evaluation-inputting step in which evaluation data of the program contents is inputted, and a transmitting step in which the evaluation data is transmitted to a database center.

15. A program-evaluating method, comprising an evaluation-data-input-urging step in which a viewer is urged to input evaluation data on broadcast program contents, a transmitting step in which the evaluation data is transmitted

to a database center, a data-receiving step in which other viewers' evaluation data accumulated at the database center is received, and a data-output step in which the received other viewers' evaluation data is outputted.

16. The program-evaluating method as claimed in claim 15, wherein the evaluation data processed by each property data at the database center can be received in the data-receiving step.

17. The program-evaluating method as claimed in claim 15, wherein the evaluation data processed by each similar viewer at the database center can be received in the data-receiving step.

18. A program-evaluation-data-totaling method, comprising a property-data-receiving step in which property data transmitted by the viewer is received, a viewer-property-data-totaling step in which the received property data is accumulated to be totaled, an evaluation-data-receiving step in which evaluation data which a viewer makes for a broadcast program is received, a program-evaluation-data-totaling step in which the received evaluation data is accumulated to be totaled, and a transmitting step in which the evaluation data totaled by each property data is

transmitted to the viewer.

19. A computer readable recorded medium which is recorded with a program for executing an output-detecting step in which an output of broadcast program contents is detected, an evaluation-data-input-urging step in which a viewer is urged to input evaluation data of the contents, and a transmitting step in which the inputted evaluation data is transmitted to a database center.

20. The computer readable recorded medium as claimed in claim 19, which is recorded with a program for executing an output-detecting step in which an output of broadcast program contents is detected, a property-input-urging step in which a viewer is urged to input the viewer's property data, an evaluation-data-input-urging step in which the viewer is urged to input evaluation data of the contents, and a transmitting step in which the inputted property data and evaluation data is transmitted to the database center.

21. The computer readable recorded medium as claimed in claim 19 or claim 20, which is recorded with a program for executing an output-detecting step in which an output of broadcast program contents is detected, a property-input-urging step in which a viewer is urged to input the viewer's

property data, an evaluation-data-input-urging step in which the viewer is urged to input evaluation data of the contents, a transmitting step in which the inputted property data and evaluation data is transmitted to the database center, a request-transmitting step in which a request for reference to other viewers' evaluation data is transmitted to the database center, and a data-receiving step in which the other viewers' evaluation data is received when the database center, on receiving the request by the request-transmitting means, has transmitted the evaluation data.

Abstract

The present invention relates to a technology for making use of viewers' evaluation data on broadcast program contents.

The present invention is a program evaluating device comprising evaluation-data-input means by which a viewer inputs evaluation data on broadcast program contents, and transmitting means which transmits the inputted evaluation data to a database center.

Moreover, a program evaluation data tallying device is also provided which comprises evaluation-data-receiving means which receives evaluation data which a viewer made on the broadcast program contents, a program-evaluation database which accumulates to total the received evaluation data, and transmitting means which can transmit the evaluation data to the viewer.

FIG. 1

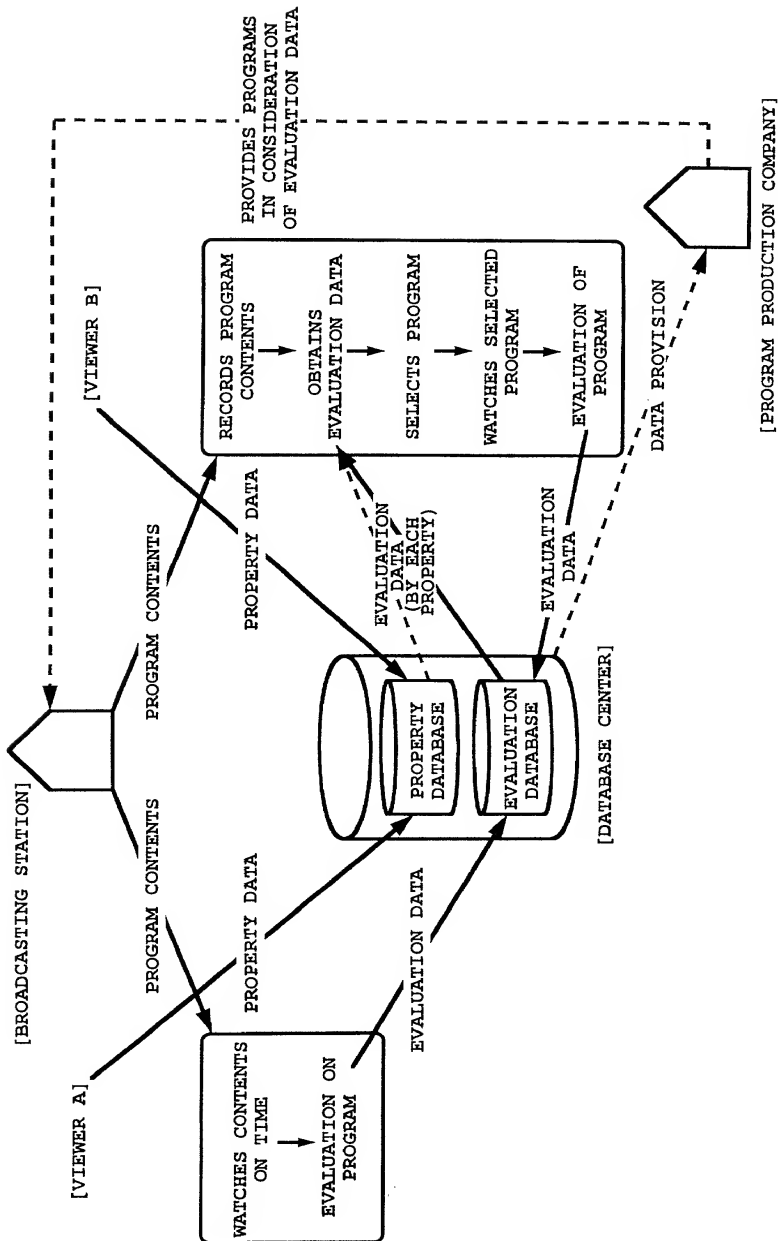


FIG.2

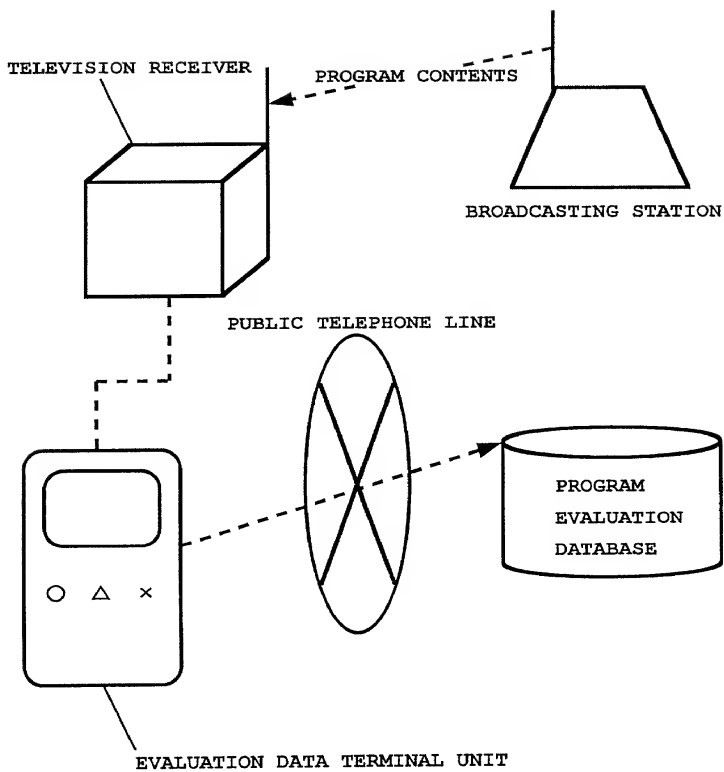
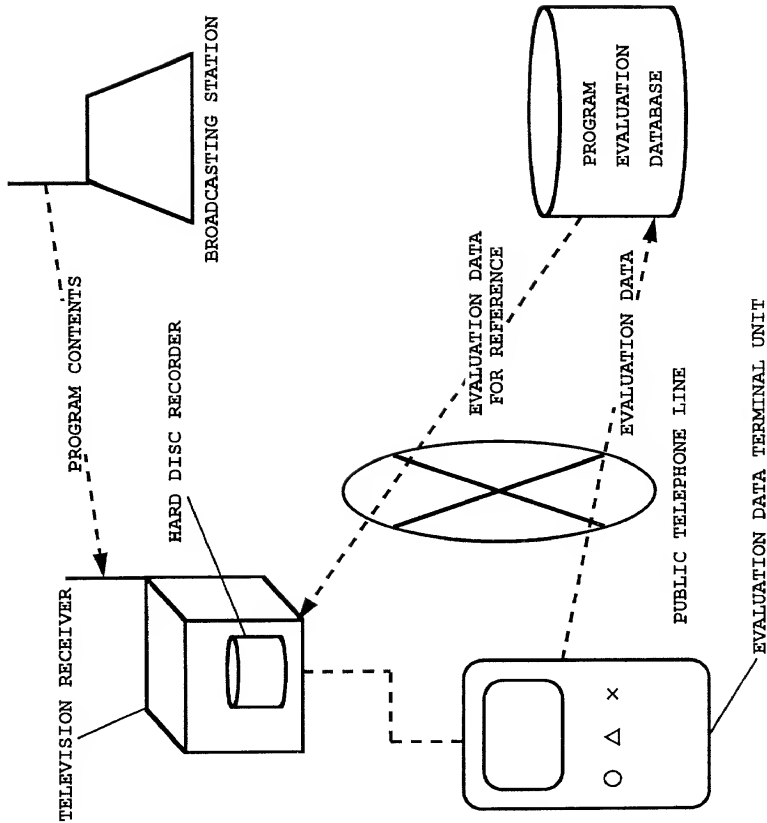


FIG.3



09/787607

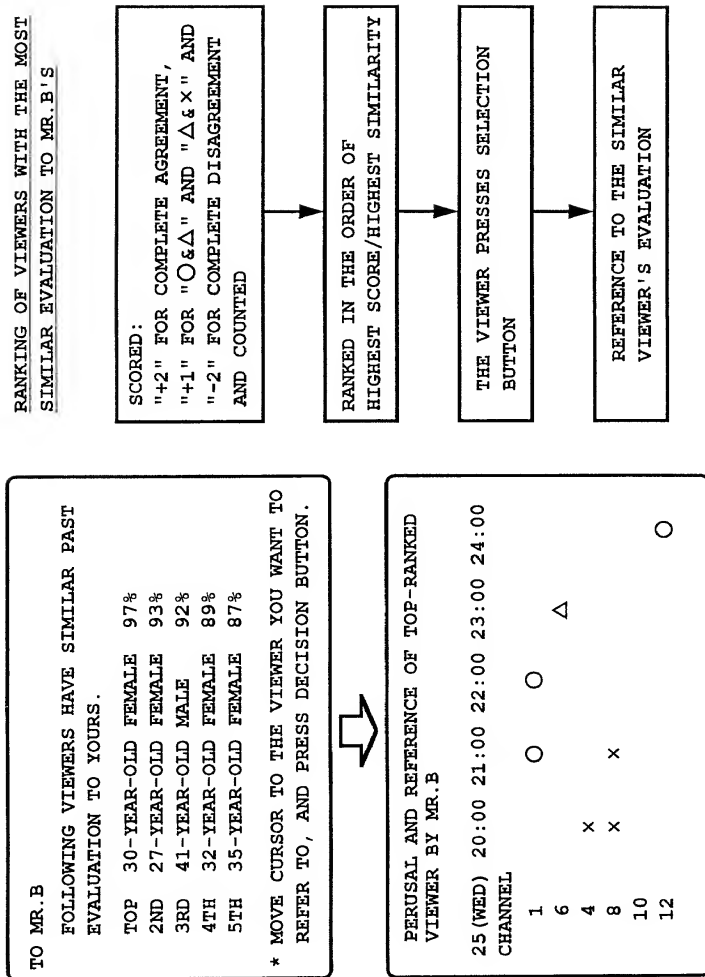
FIG.4

EVALUATION LIST OF MR. A									
23 (MON)	20:00	21:00	22:00	23:00	24:00				
CHANNEL									
1		O	O						
4				Δ					
6		x							
8		x	x						
10									
12					x				
23 (TUE)	20:00	21:00	22:00	23:00	24:00				
CHANNEL									
1		Δ	O						
4				Δ					
6			x						
8			O						
10									
12									O
.									
.									

EVALUATION LIST OF MR. B									
23 (MON)	20:00	21:00	22:00	23:00	24:00				
CHANNEL									
1			O	O					
4					Δ				
6			x						
8			x						
10									
12					Δ				
23 (TUE)	20:00	21:00	22:00	23:00	24:00				
CHANNEL									
1			Δ	O					
4					x				
6									
8				O					
10									
12									O
.									
.									

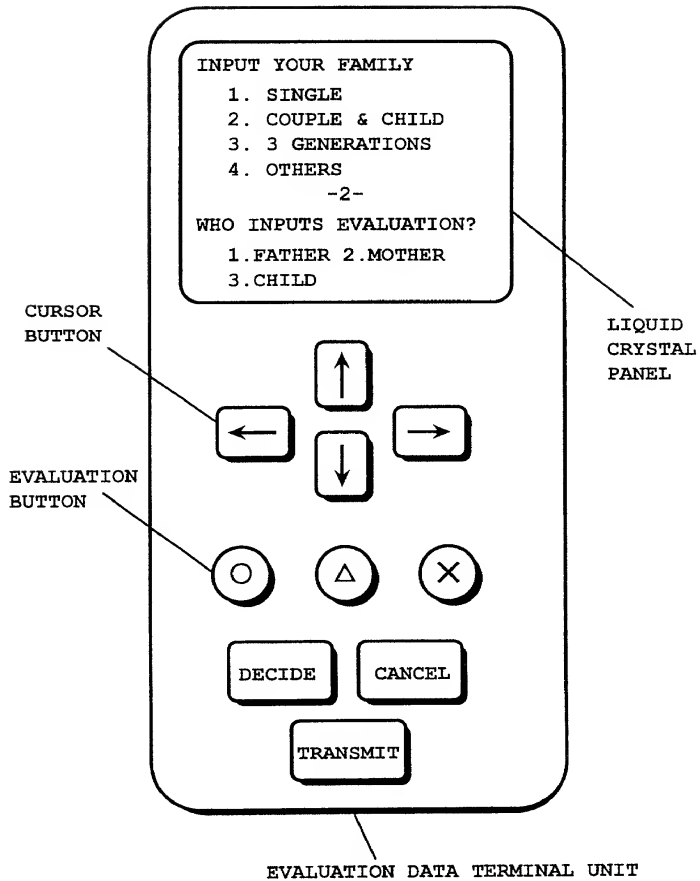
09/787607

FIG.5



MR.B DECIDES WHICH PROGRAM ON 25TH (WED) HE WILL WATCH WITH REFERENCE TO THE LIST ON THE LEFT.

FIG. 6



Docket No. K-1964

Declaration and Power of Attorney For Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

PROGRAM EVALUATING DEVICE, PROGRAM EVALUATION DATA TALLYING DEVICE,
PROGRAM EVALUATING METHOD, AND RECORDED MEDIUM

the specification of which
(check one)

- ☐ is attached hereto.
☒ was filed on August 10, 2000 as United States Application No. or PCT International
Application Number PCT/JP00/05370
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

<u>11-226247</u>	<u>Japan</u>	<u>10/08/1999</u>	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	

_____	_____	_____	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	

_____	_____	_____	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

_____	_____
(Application Serial No.)	(Filing Date)

_____	_____
(Application Serial No.)	(Filing Date)

_____	_____
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U.S.C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C.F.R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

_____	_____	_____
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

_____	_____	_____
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

_____	_____	_____
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

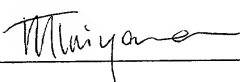
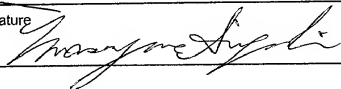
Yusuke Takeuchi Reg. No. 30,921
 Manabu Kanesaka Reg. No. 31,467

Send Correspondence to:

KANESAKA AND TAKEUCHI, 1423 Powhatan Street
Alexandria, Virginia 22314

Direct Telephone Calls to:

Manabu Kanesaka at telephone number (703) 519-9785

Full name of sole or first inventor	
<u>Masahiro Toriyama</u>	
Sole or first inventor's signature	Date
	<u>March 7, 2001</u>
Residence	
<u>Tokyo, Japan</u> JPX	
Citizenship	
Japanese	
Post Office Address	
c/o NOMURA RESEARCH INSTITUTE, LTD. 2-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan	
Full name of second inventor	
<u>Masayasu Ariyoshi</u>	
Second inventor's signature	Date
	<u>March 9, 2001</u>
Residence	
<u>Tokyo, Japan</u> JPX	
Citizenship	
Japanese	
Post Office Address	
c/o NOMURA RESEARCH INSTITUTE, LTD. 2-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan	

Full name of third inventor <u>Yoshinori Nomura</u>	
Third inventor's signature <u>Yoshinori Nomura</u>	Date <u>2001 07 March</u>
Residence <u>Tokyo, Japan JPX</u>	
Citizenship <u>Japanese</u>	
Post Office Address c/o NOMURA RESEARCH INSTITUTE, LTD. 2-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan	

09797607 022004